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Nextracker

24 July 2024

1:00 pm – 2:00 pm | Dubai
2:30 pm – 3:30 pm | IST, Delhi
11:00 am – 12:00 pm | CEST, Berlin



Bella Peacock
Editor
pv magazine



Uma Gupta
Editor
pv magazine

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Unlocking Solar Project Success: Best Practices for Selecting the Right Tracker System



Abhilash Pamulaparthi
Senior Product Manager
Nextracker

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Prasanta Patra
Assistant Vice President
Ayana Renewables India




Samul Verma
Head Engineering (Civil)
**Sterling and Wilson
Renewable Energy**



Siddharth Singh
AVP - design & Engineering
Serentica Renewables



Welcome!

Do you have any questions?  

Send them in via the Q&A tab.  We aim to answer as many as we can today!

You can also let us know of any tech problems there.

We are recording this webinar today. 

We'll let you know by email where to find it and the slide deck, so you can re-watch it at your convenience.  



PV Magazine Webinar

Abhilash Pamulaparthi

NextTracker

July 24, 2024

2024



\$2.5 Billion

REVENUE FY '24
ENDING MARCH 2024



500+

PATENTS
MECHANICAL, ELECTRONICS, SOFTWARE



100 GW

SHIPPED (CUMULATIVE)

Feb 2023 IPO

\$ 8 Billion

MARKET CAP
AS OF JUN 2024



80+

WORLDWIDE PARTNER MFG. FACILITIES



40

COUNTRIES WITH ACTIVE CUSTOMERS

Why Solar Trackers for India?

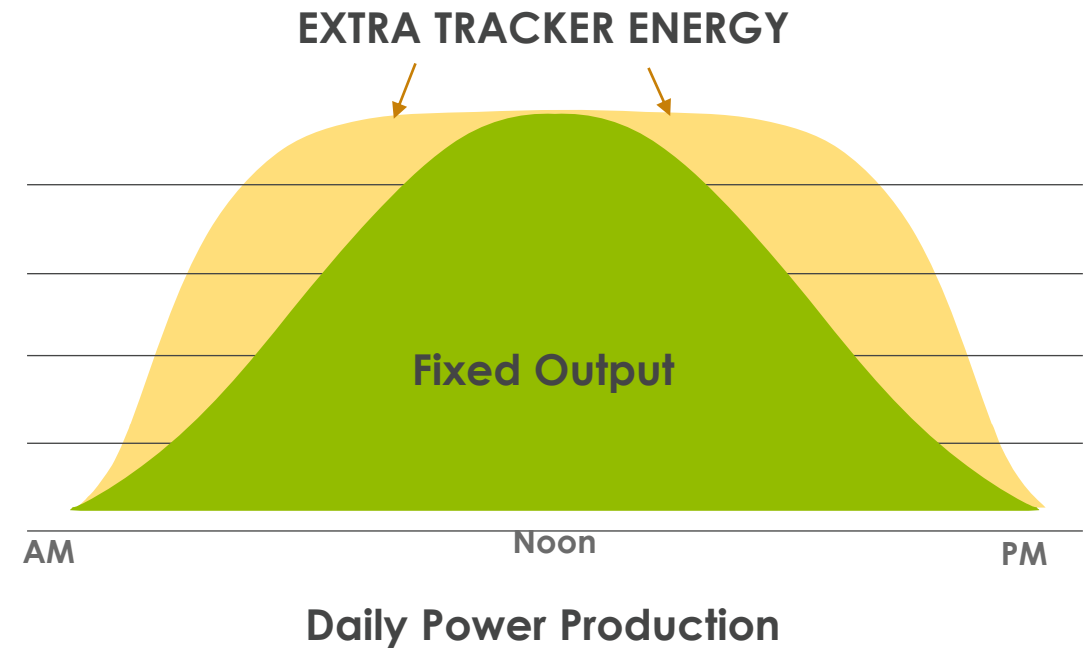
Lower Levelized Cost of Energy (LCOE) and Higher IRR

- **20–30%** more energy yield than fixed tilt
- Better match to utility load and generate more energy during higher-use times
- Higher performance from bifacial panels

NX-Specific Software Benefits vs. Fixed

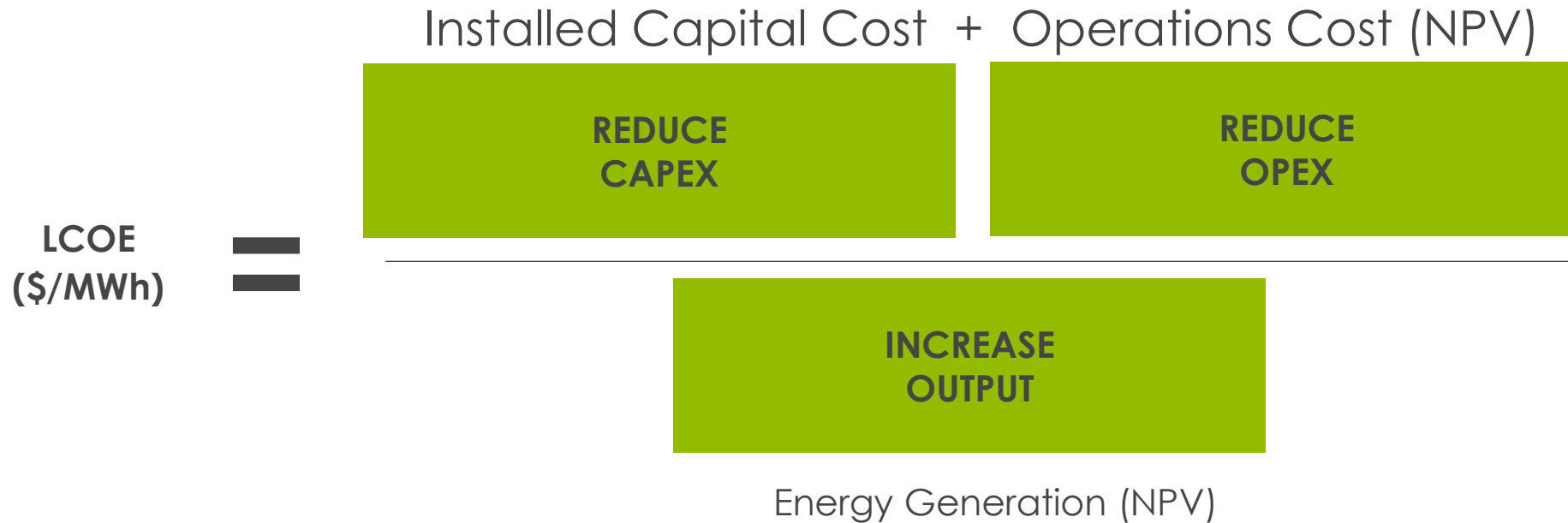
- Enables software-driven performance optimization
- Helps mitigate risk from weather: snow, flooding, hail

Tracker Compared to Fixed Mount



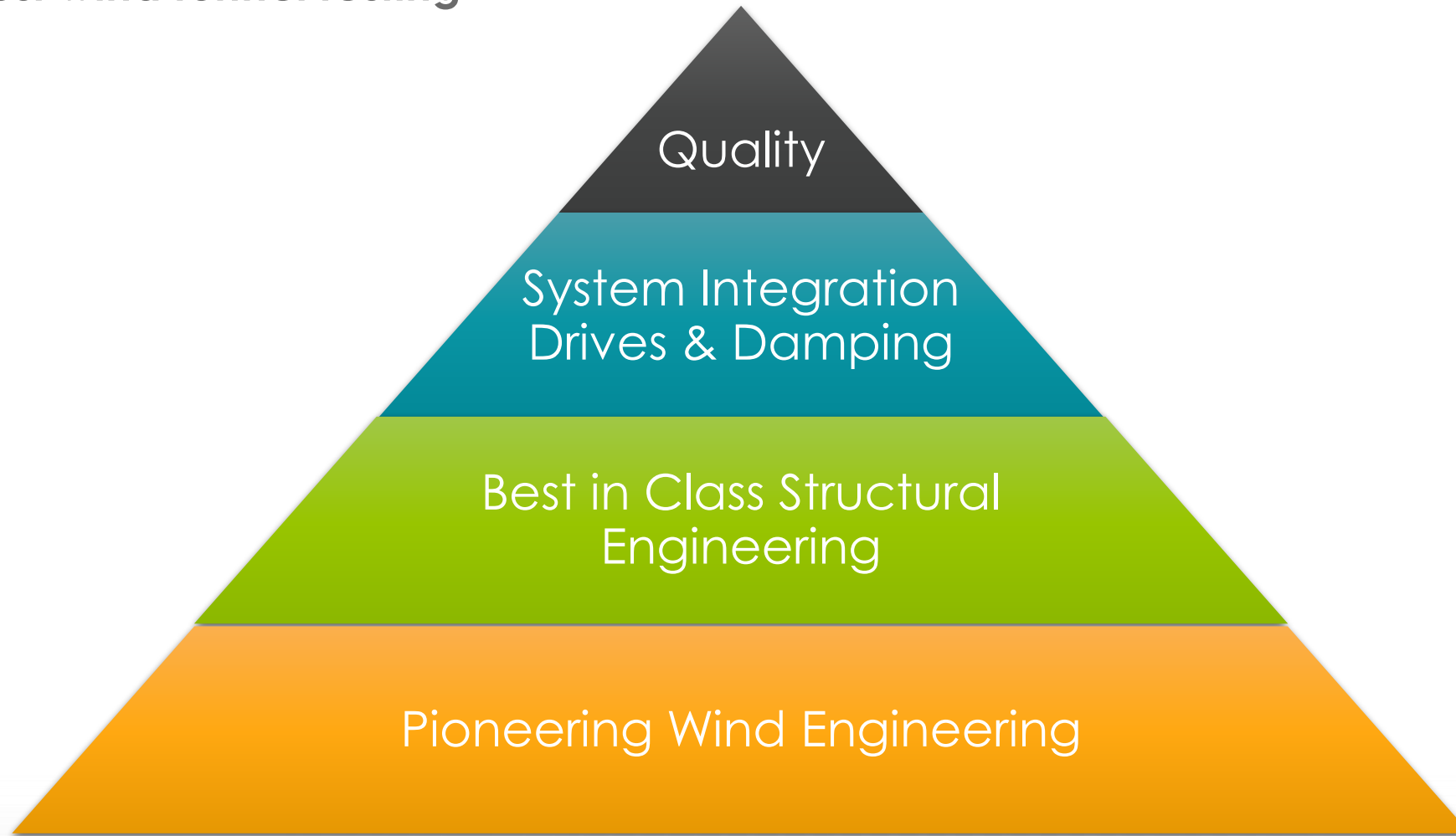
LCOE advantage

Nexttracker provides advantages in all 3 Levelized Cost of Energy (LCOE) levers



Nexttracker Designing Excellence for Indian projects

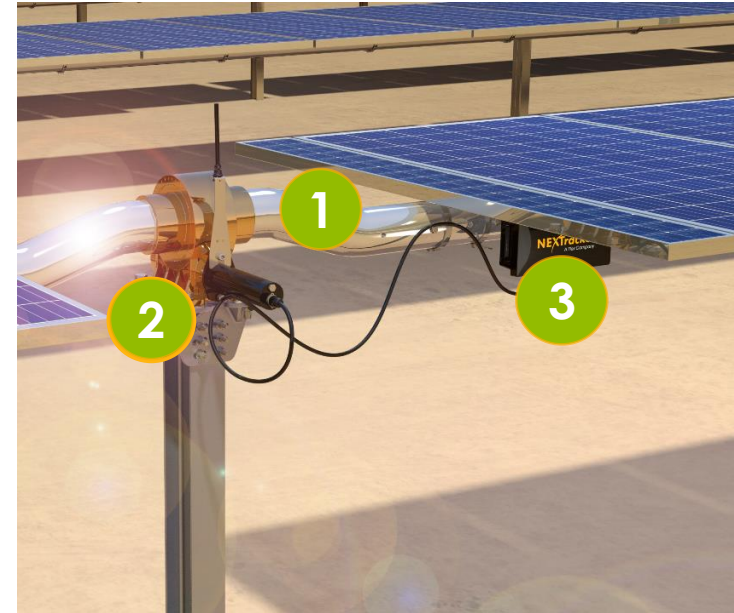
It's not just wind tunnel testing



NX Horizon Self-Powered Tracker

Superior mechanical design with smart control features

- 1** **Balanced Drive System-** Self-powered, independent tracker rows move quickly with high precision and energy efficiency
- 2** **Tracker-level Comms-** Trackers are wirelessly connected to provide individual row control and visibility of real-time activity
- 3** **Self-Powered Controller-** Powers tracker movement, enables data collection via smart sensors and TrueCapture yield enhancement

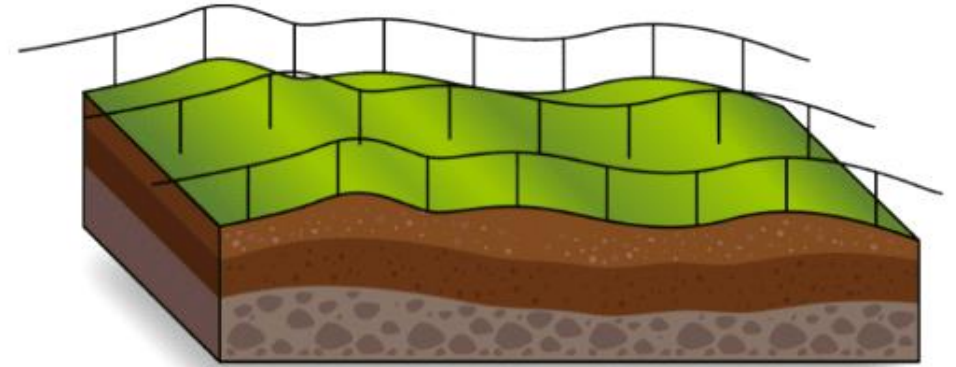


NX Horizon-XTR™ Terrain-Following Capability



- Eliminate up to 100% tracker-area grading
- Up to 36" pile length reduction
- Reduced earthwork schedule risk
- Reduced re-vegetation costs and soil erosion

Tracker follows native contours



Standard Tracker

Perform earthwork → Build "straight line" trackers



Nexttracker Tech Suite Increases Addressable Market

THE NEXT FRONTIER FOR SOLAR & AGRICULTURE



AgriPV Solution

Solar solutions that benefit farming communities and biodiversity

- Independent-row architecture simplifies harvesting and O&M
- NX Horizon-XTR protects topsoil and local habitat
- Integrated software enables operational control for harvesting, cattle grazing & other needs in the field

UP TO 35% LESS EMBODIED CO₂E*

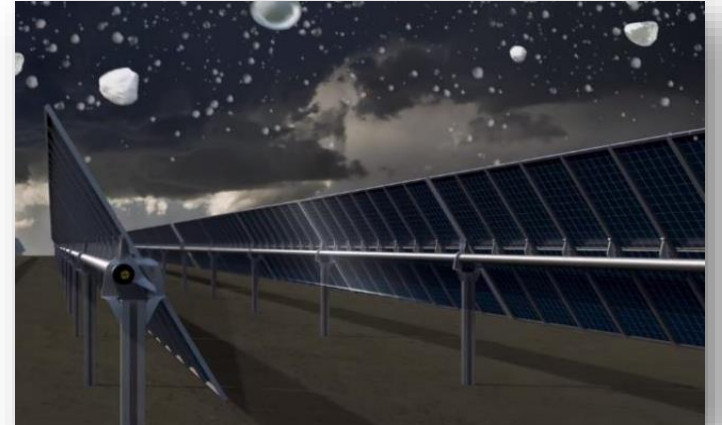


NX Horizon Low Carbon

Low Greenhouse Gas Manufacturing Option, with Emissions Verification

- Up to 35% less embodied CO₂e* vs. traditional, imported tracker products
- Reduced Resources: less water, minerals, land required for production & fulfillment
- Includes 3rd party validated Life Cycle Assessment (LCA) report

FIRST GENERATION HAIL STOW DELIVERED IN 2020



NX Horizon Hail Pro

Comprehensive Hail-Stowing Solution Hardware, Software, Service

- Leverages NX Horizon with Integrated UPS
- Automatic stowing using weather service information, hail readiness services, and where desired, Hail Pro-75™ for stowing at up to 75 degrees for extreme hail locations

TrueCapture Smart Control Modes

Up to 4% total annual energy gain

Diffuse Mode



When: During diffuse light conditions

What: Boosts energy compared to standard sun-facing angles

How: Re-positions trackers to more skyward-facing positions

Modules: Full-cell, Split-cell, Thin-film

Row-to-row backtracking (R2R) Modes



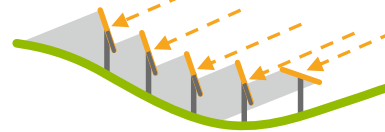
Shade Avoid

When: Early AM and late PM

What: Boosts energy compared to standard backtracking

How: Avoids module shade, using terrain-adaptive, row-by-row backtracking algorithms

Modules: Full-cell, Split-cell



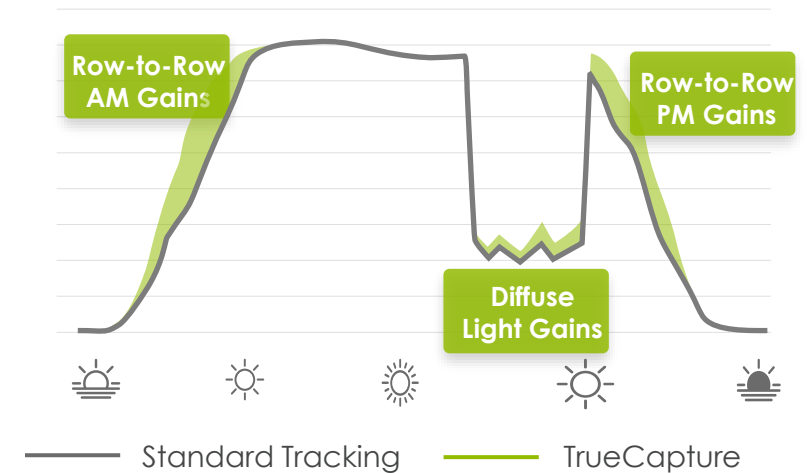
Split Boost

When: Early AM and late PM

What: Boosts energy compared to standard backtracking

How: Maximizes light on module top-half, using terrain-adaptive, row-by-row backtracking algorithms

Modules: Split-cell



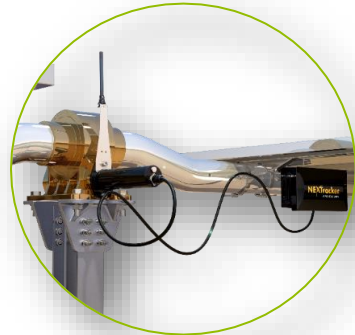
Up to
4%
total annual energy gain

No Compromise on Product Quality & Reliability

High-Quality & Durability

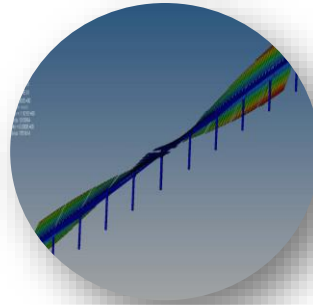


Brushless DC motors for long-term durability and lower O&M costs



Lithium-ion batteries provide superior lifespans and lower O&M costs

World-Class Wind Engineering & Performance



Wind tunnel-tested design and engineering with no substantial wind failures over the last seven years



Dampers reduce oscillations of a tracker sustains dynamic effects under wind loads



Extreme weather stow functionality increases survivability of solar panels.

¹ Based on aggregate Nextracker Asset Management customer satisfaction survey data for responding to service requests (avg. of Q1 and Q2 FY24 through 9/29/2023).

² Based on company data, applicable to NX Horizon 2 systems properly designed and installed and operating at or below code wind speed.

³ Based on Wood Mackenzie Ltd., Global Solar PV Tracker Market Share 2023 Report for CY22 (July 2023 report).

⁴ Based on RETC Hail Test Report report: Allen, J. T., and M. K. Tippett, "The characteristics of United States hail reports: 1955–2014", Electronic J. Severe Storms Meteor., 10 (3), 1–31.

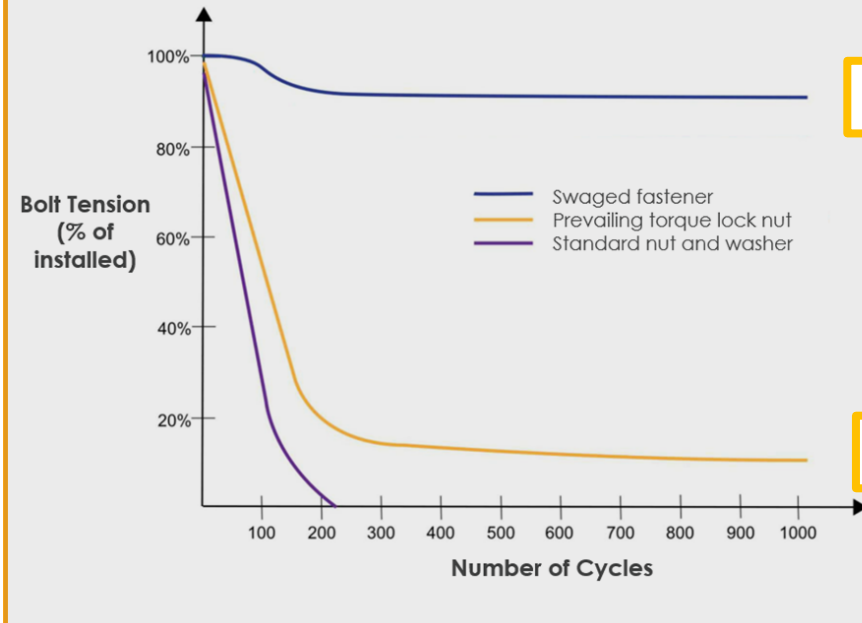
Superior Components: A Lifetime Connection

Structural integrity, reliability and safety

Aeronautical Fasteners



Vibration Resistance vs. Threaded Fasteners



Engineered Fasteners (Nextracker)

Standard torque nuts and bolts

*Test results shown here were compiled from previous tests completed by Bolt Science, LTD, Huck International, Inc and Henkel Corp.

Intensive Full Scale Wind Engineering & Design

Collecting 600+ channels of data daily

Data being collected:

- Wind
- Air Pressure
- Force
- Strain
- Torque
- Acceleration
- Displacement
- Motor Current
- Control Status
- Video



NREL Flat Irons Campus Installation

NXT Differentiated Reliability In the Real World

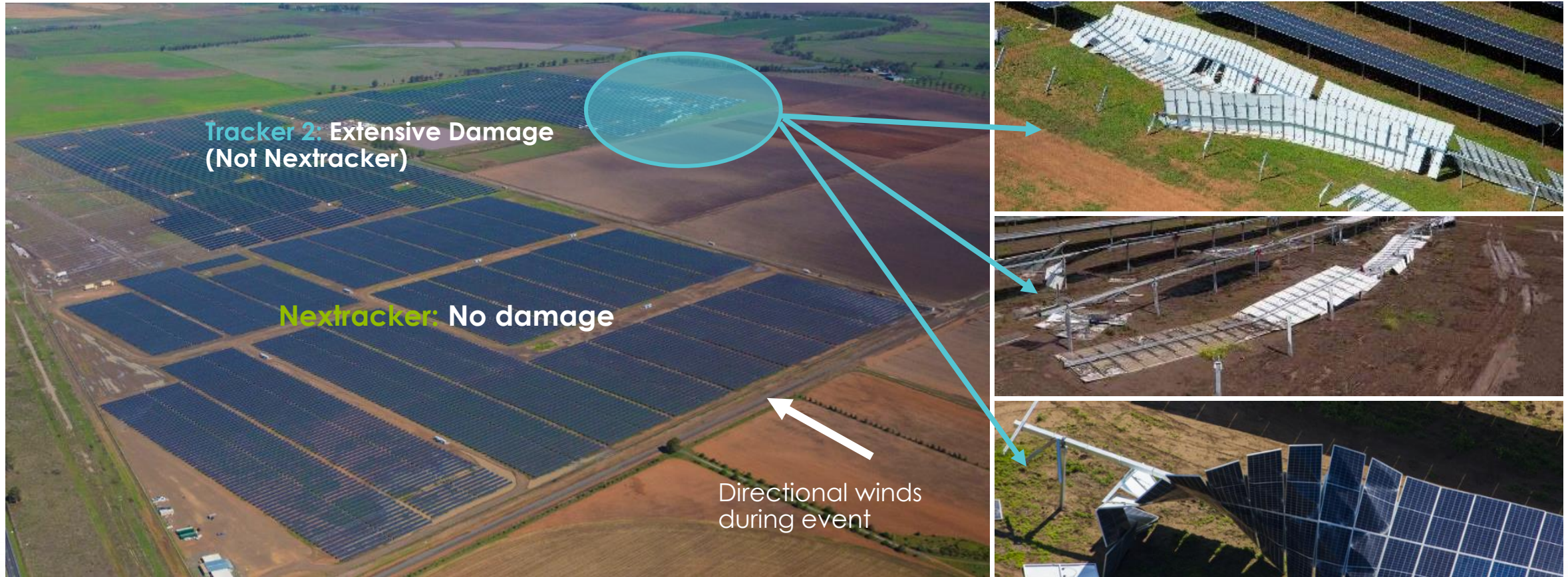
Engineering & Technology Matter Especially with More Extreme Weather



Two Different Tracker Architectures, Side-by-Side

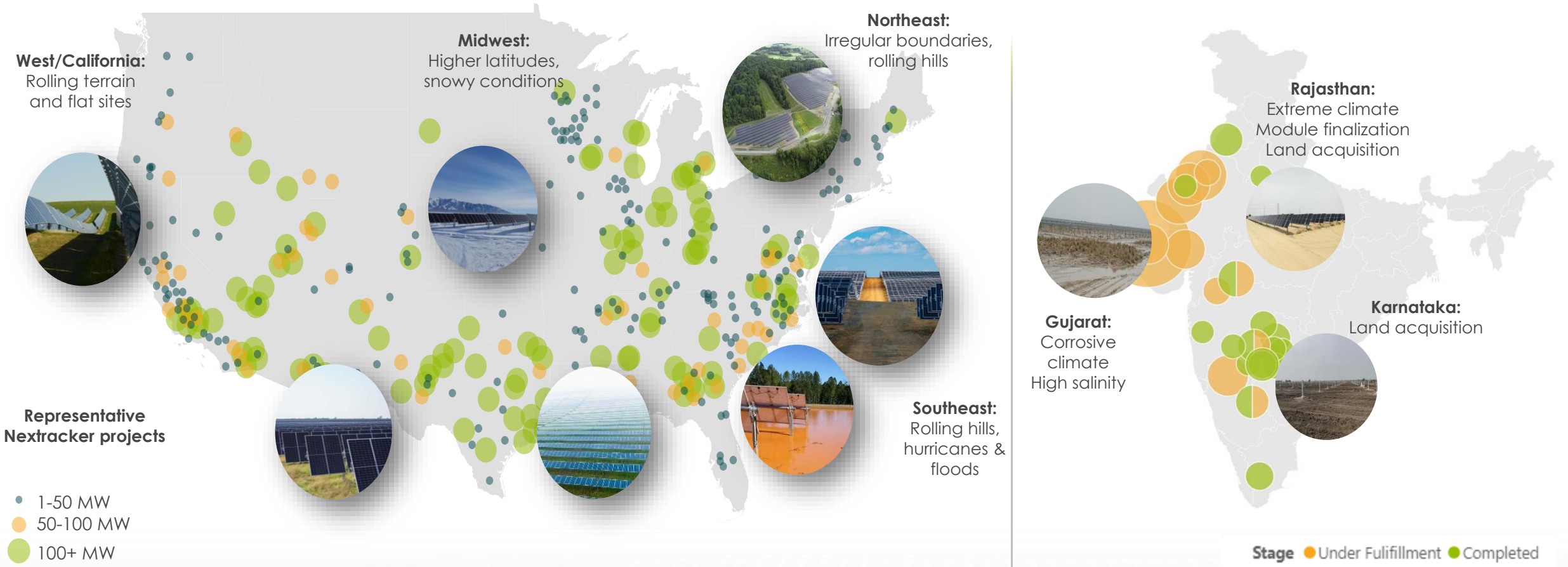
NXT Differentiated Reliability In the Real World

Engineering & Technology Matter Especially with More Extreme Weather



Oakey, Queensland, Australia (2019)

Nexttracker Projects Deployed: Wide Range of Conditions



Quality & Reliability Matters

When a fast-moving storm hits your site quality and reliability matter:

- Will the **controllers** have **enough energy**?
- Will the **dampers** have sufficient **reliability to provide stability**?
- Will the **motor** be worn out and **non-functioning**?
- Will the **firmware** for the weather sensing system and control system be **bug-free**?

Working with the right partner and selecting the tracker system is the key to ensuring you are maximizing your investment

Additional Resources

Click on the titles to read more on these topics



[Mitigating Extreme Weather Risk](#)



[A Tale of Two Solar Racking System Fasteners: Threaded vs. Lockbolt](#)



[Optimizing your Energy Yield](#)



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Panel discussion

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Q&A



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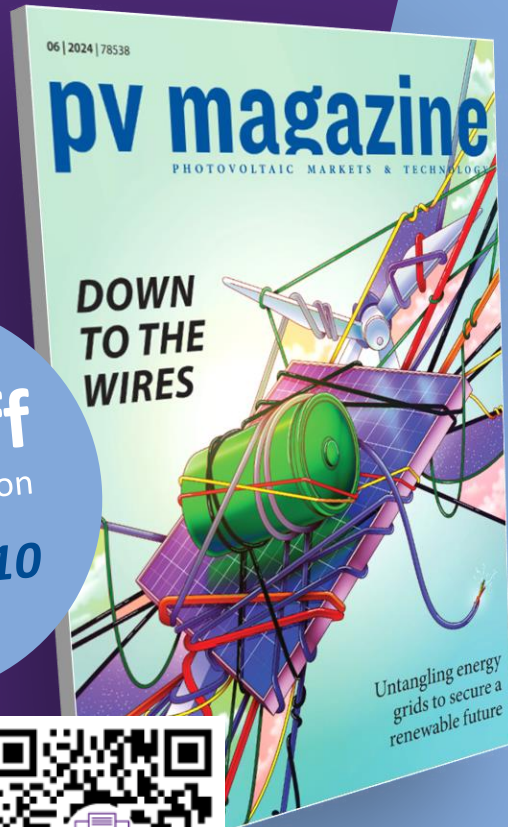


Siddharth Singh
AVP - design & Engineering
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SunPower stock crashes 70%

by Ryan Kennedy



**Most-read
online!**

Water-source heat pump integrating cooled photovoltaic panels, thermal storage

by Emiliano Bellini



Coming up next...

Monday, 29 July 2024

10:00 am – 11:00 am CEST, Berlin

Friday, 23 August 2024

3:00 pm – 4:00 pm CEST, Berlin

Many more to come!

**Einstieg mit höchsten
Ansprüchen: das erste
Heimspeichersystem
von Anker Solix**

(Webinar is in German)

**Großer
Containerspeicher mit
Brandschutzlösung DC-
und AC-Kopplung**

(Webinar is in German)

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**Thank you for
joining today!**